

Declaration and Power of Attorney for Patent Application

As below named inventors, we hereby declare that:

Our residences, post office addresses and citizenships are as stated below next to our names,

We believe that we are the original, first and joint inventors of the subject matter which is claimed and for which a patent is sought on the invention entitled **SOFTWARE ANALYSIS TOOL FOR CDMA SYSTEM**, the specification of which

☒ [X] is attached hereto.

(Check one)

☐ [] was filed on _____ as
Application Serial Number _____
and was amended on _____
(if applicable)

We hereby state that we have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

We acknowledge the duty to disclose to the U.S. Patent and Trademark Office all information known to us which is material to patentability (as defined in C.F.R. §1.56) in connection with the examination of this application.

We hereby claim foreign benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)

Priority Claimed

<u>NONE</u> (Number)	_____ (Country)	_____ (Day/Month/Year Filed)	<input type="checkbox"/> [] YES	<input type="checkbox"/> [] NO
_____ (Number)	_____ (Country)	_____ (Day/Month/Year Filed)	<input type="checkbox"/> [] YES	<input type="checkbox"/> [] NO
_____ (Number)	_____ (Country)	_____ (Day/Month/Year Filed)	<input type="checkbox"/> [] YES	<input type="checkbox"/> [] NO

Declaration and Power of Attorney for Patent Application

We hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, we acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

NONE

(Application Serial No.)

(Filing Date)

(Status: Patented/Pending/Abandoned)

(Application Serial No.)

(Filing Date)

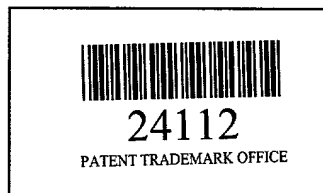
(Status: Patented/Pending/Abandoned)

Power of Attorney: As a named inventor, I hereby appoint the following agents/attorneys to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

David G. Matthews
Reg. No. 33,959

Dang Vo
Reg. No. 45,183

And I also hereby appoint the Attorneys and Patent Agents of **Coats & Bennett, P.L.L.C.**, as identified by **Customer Number 24112** in the records of the United States Patent and Trademark Office and as updated from time to time, to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith.



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Send Correspondence to:

Michael D. Murphy

Direct Calls to:

Michael D. Murphy

Declaration and Power of Attorney for Patent Application

We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

SOLE OR FIRST INVENTOR:

Full name: **Juan** **J.** **Silva**
First Name Middle Name/Initial Last Name

Signature: _____ Date: _____
First Name Middle Name Last Name Year-Month-Day

Residence: **San Diego, California United States**
City, State, and Country

Citizenship: **Argentina**

Post Office Address: **10859 Caminito Alvarez, San Diego, CA 92126**

SECOND INVENTOR, IF ANY:

Full name: **Todd** **Ruth**
First Name Middle Name/Initial Last Name

Signature: _____ Date: _____
First Name Middle Name Last Name Year-Month-Day

Residence: **Valley Center, California United States**
City, State, and Country

Citizenship: **United States**

Post Office Address: **30219 Cole Grade Road, Valley Center, CA 92082**

Declaration and Power of Attorney for Patent Application

THIRD INVENTOR, IF ANY:

Full name: Reza Shahidi
First Name Middle Name/Initial Last Name

Signature: _____ Date: _____
First Name Middle Name Last Name Year-Month-Day

Residence: San Diego, California United States
City, State, and Country

Citizenship: Iran

Post Office Address: 5070 Seachase Street, San Diego, CA 92130

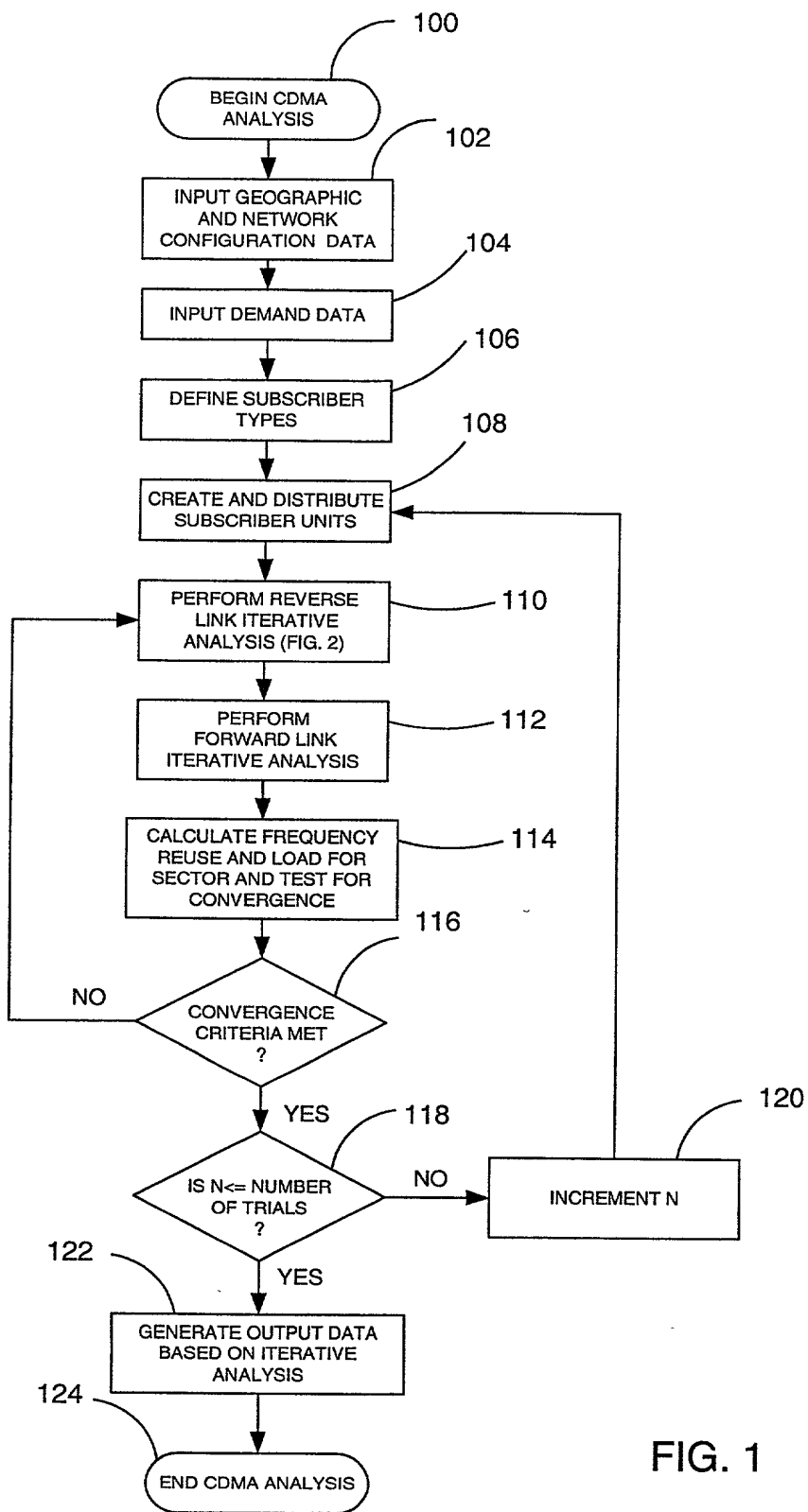


FIG. 1

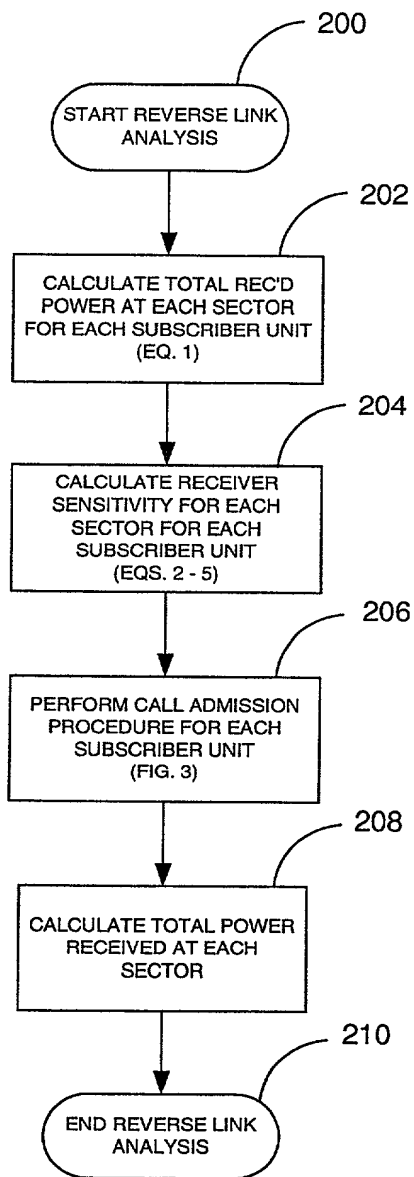
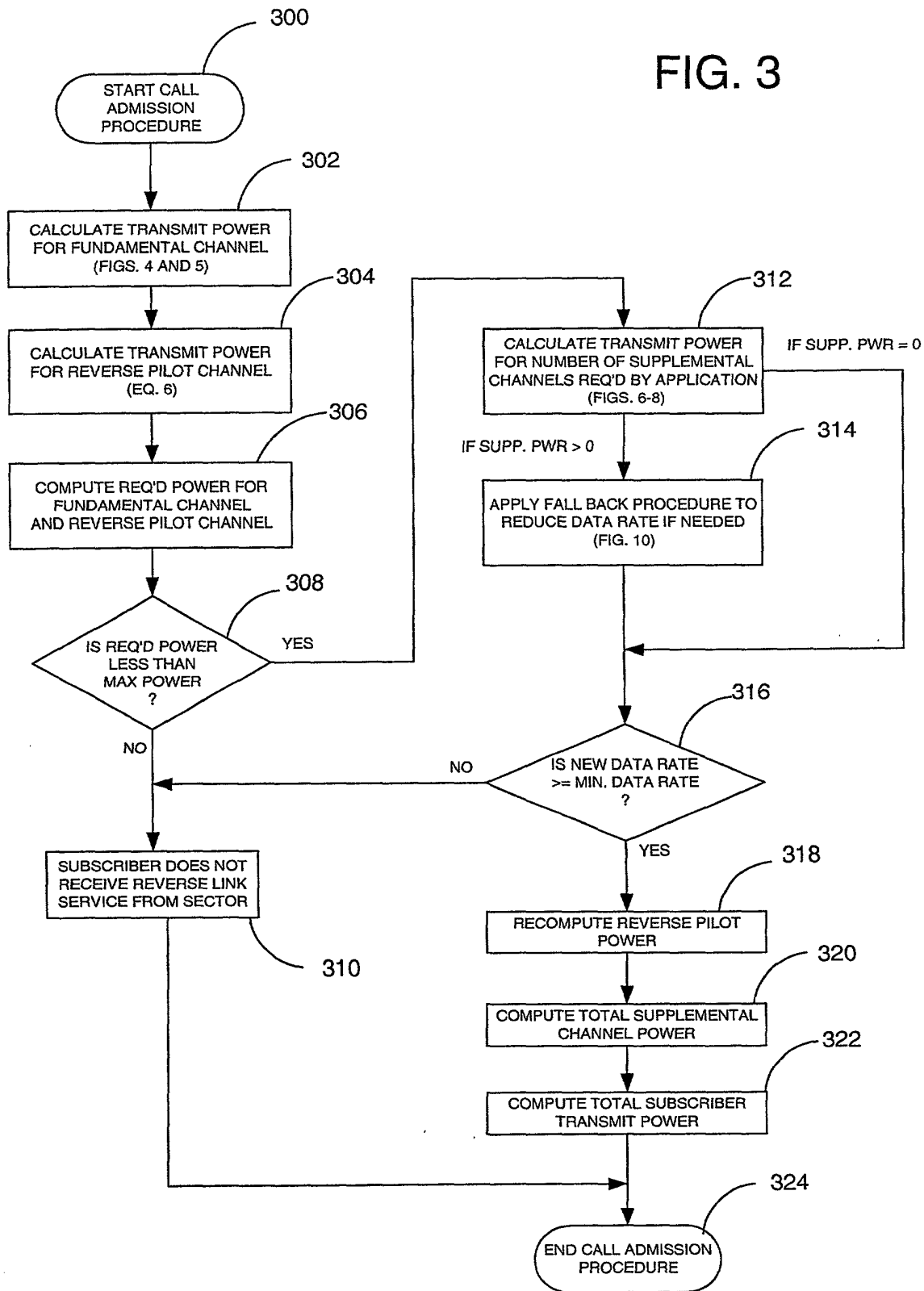


FIG. 2

FIG. 3



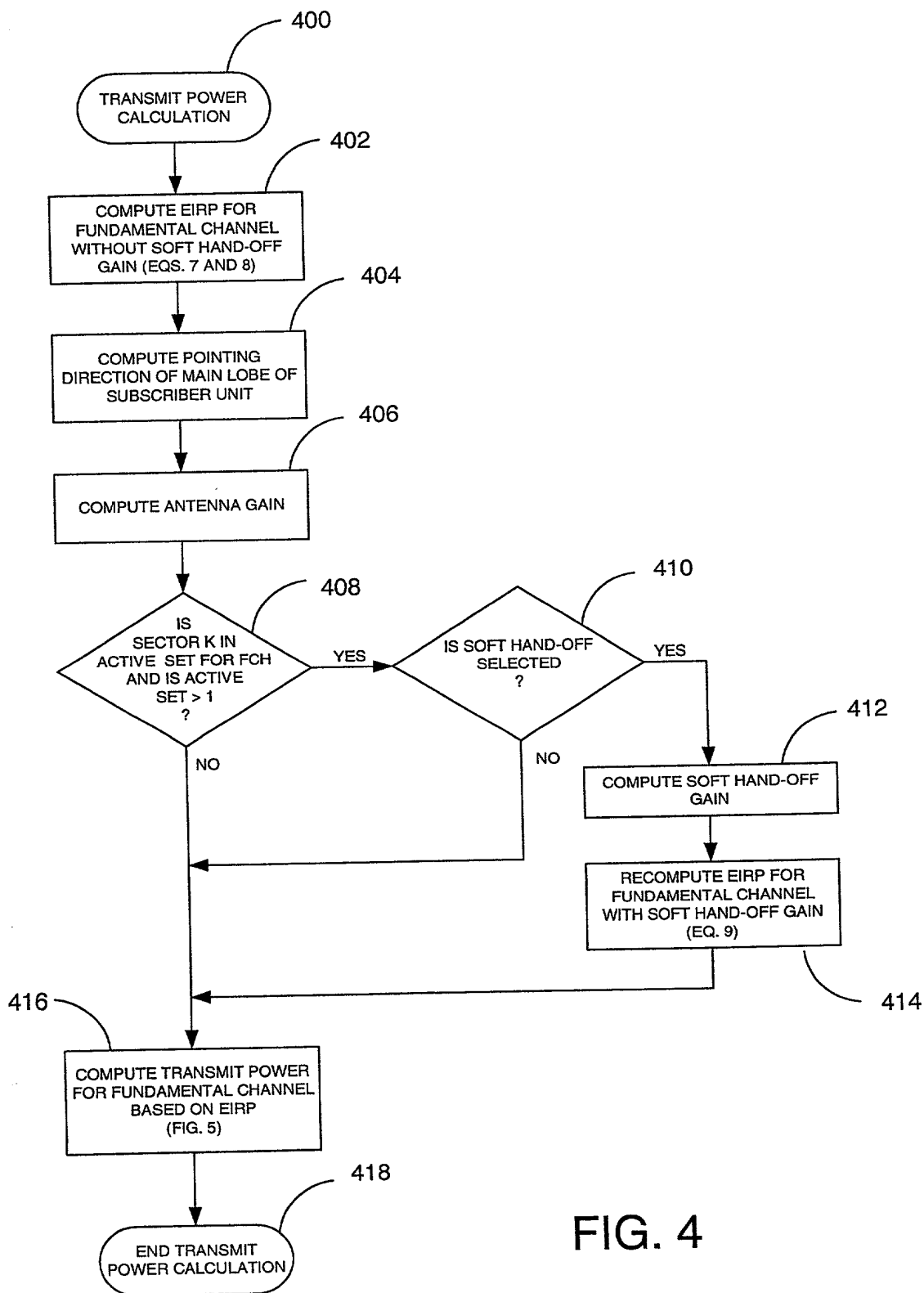


FIG. 4

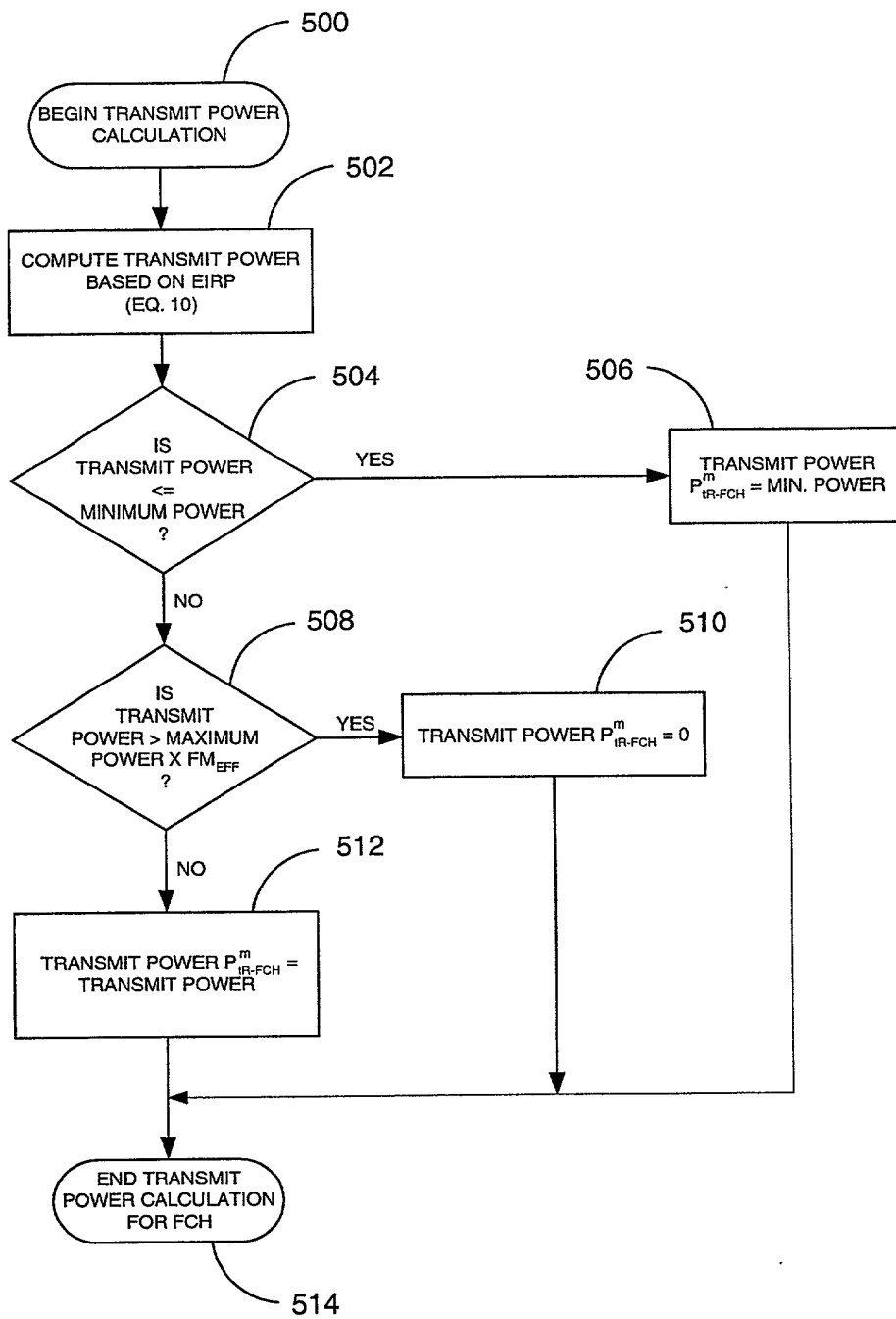


FIG. 5

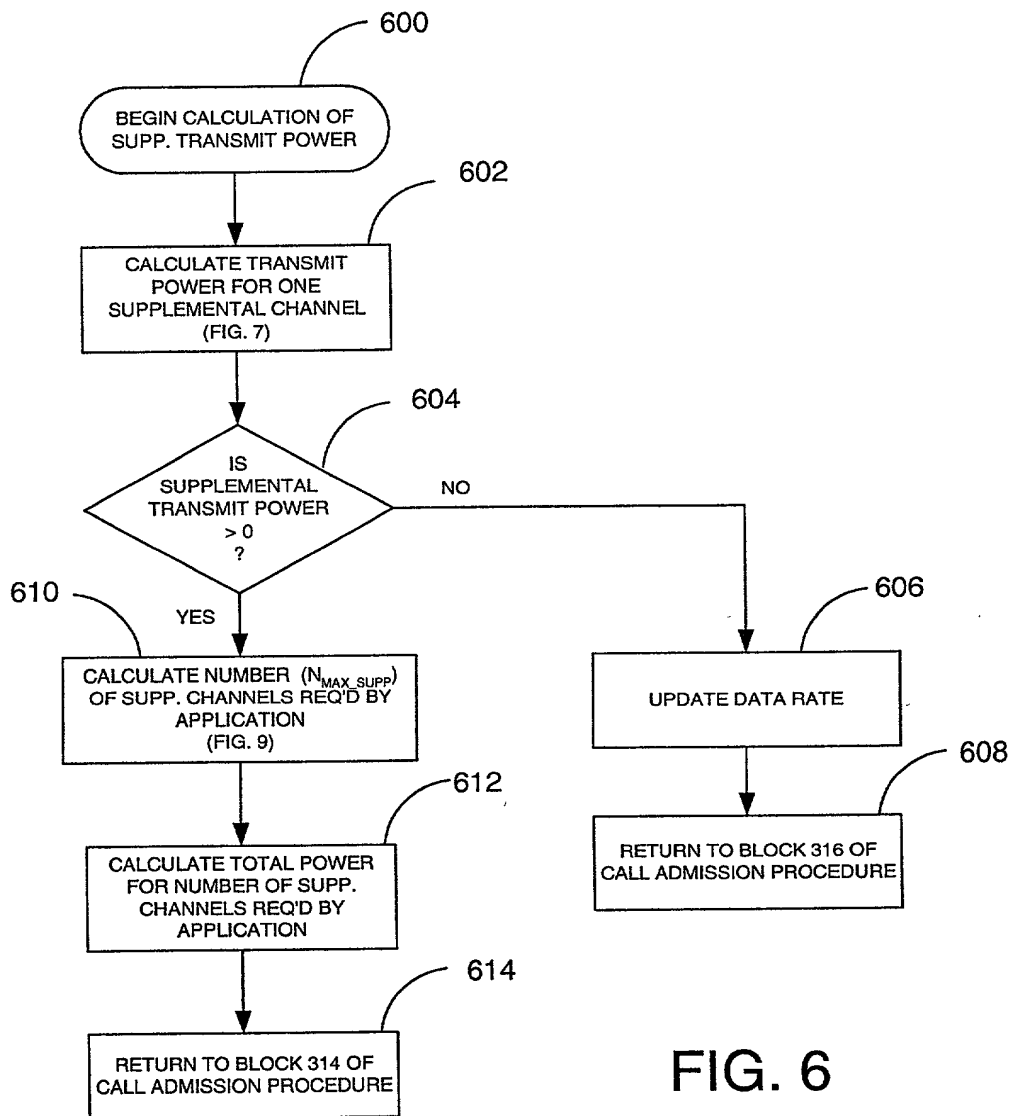


FIG. 6

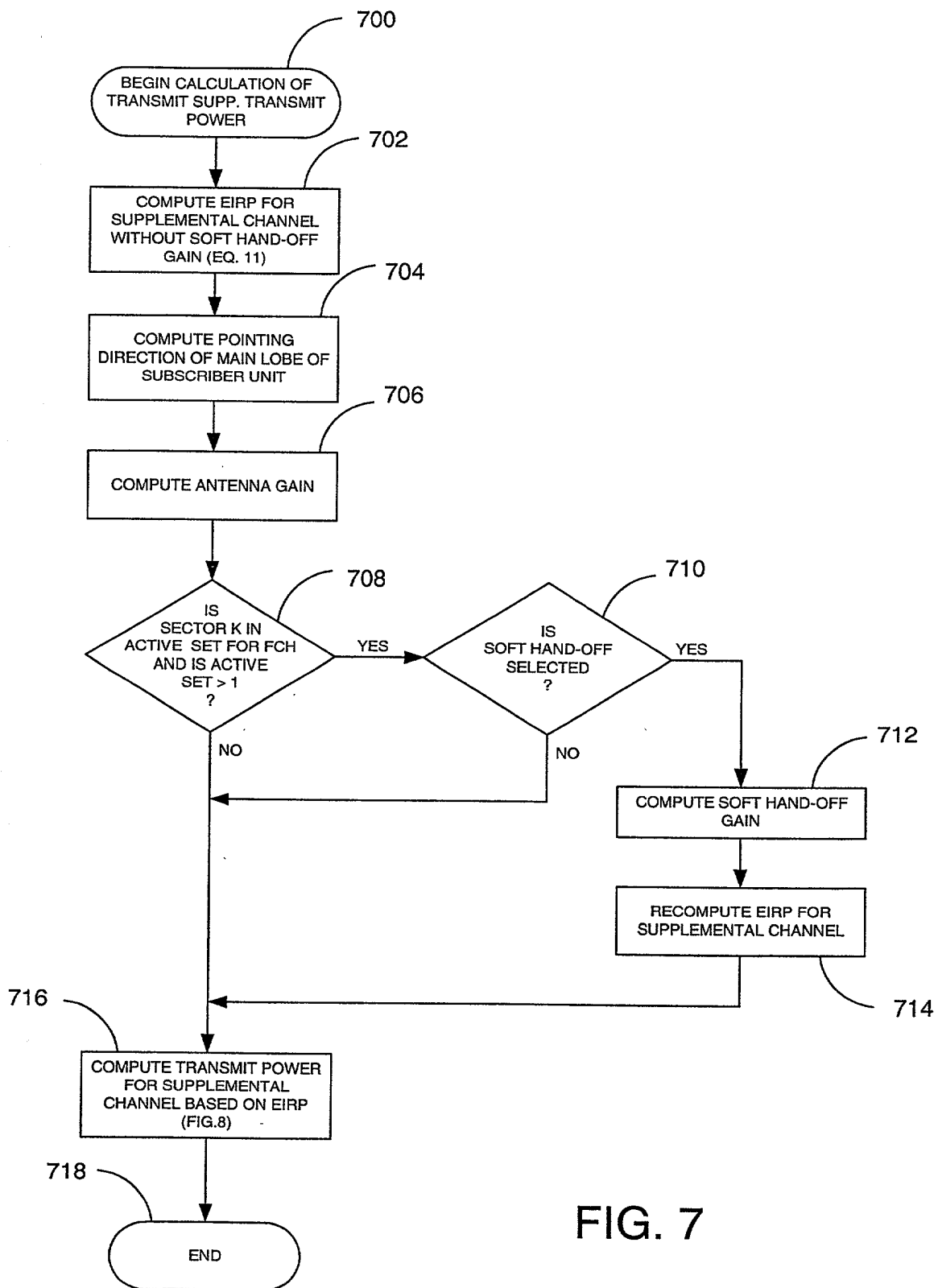


FIG. 7

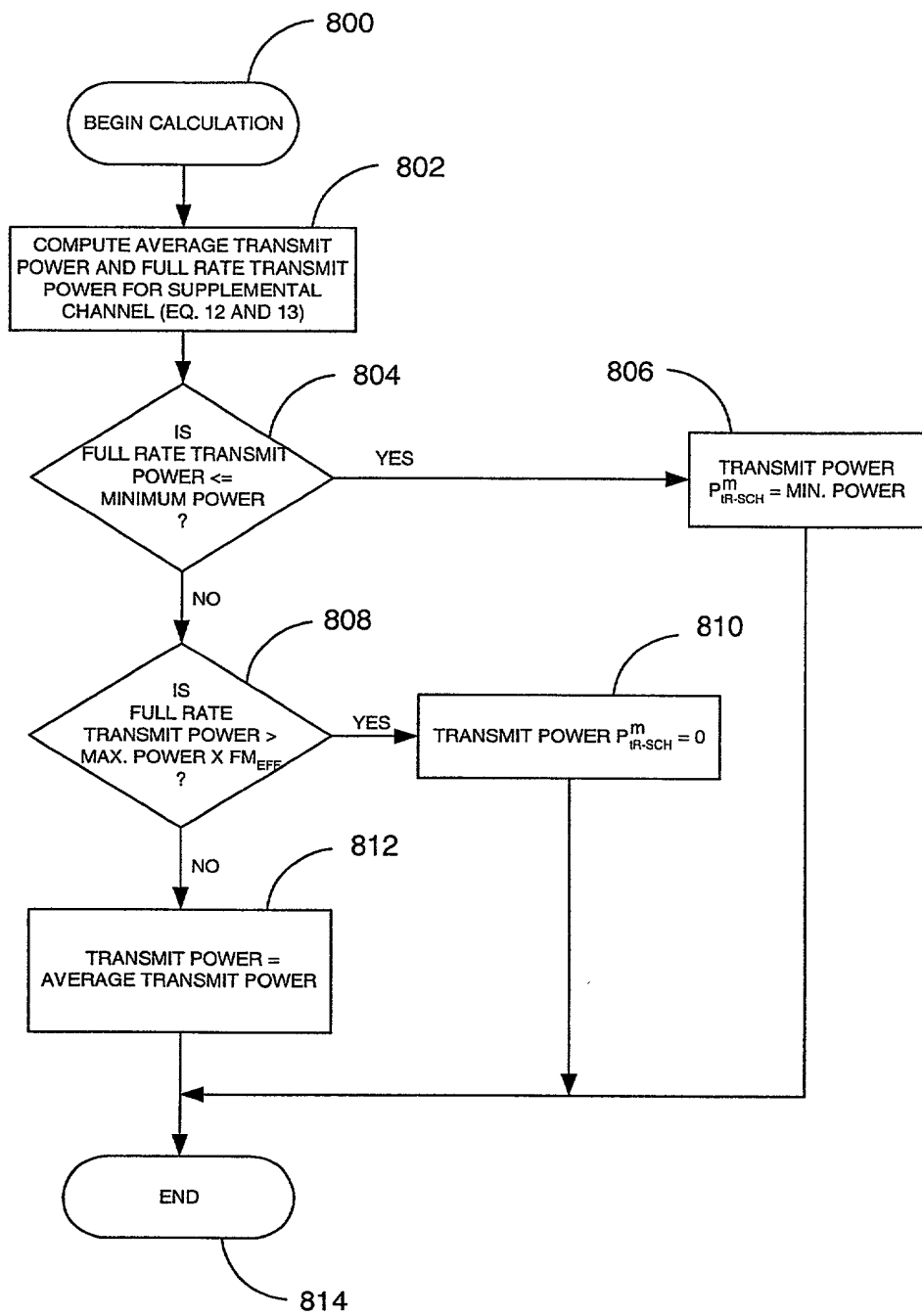


FIG. 8

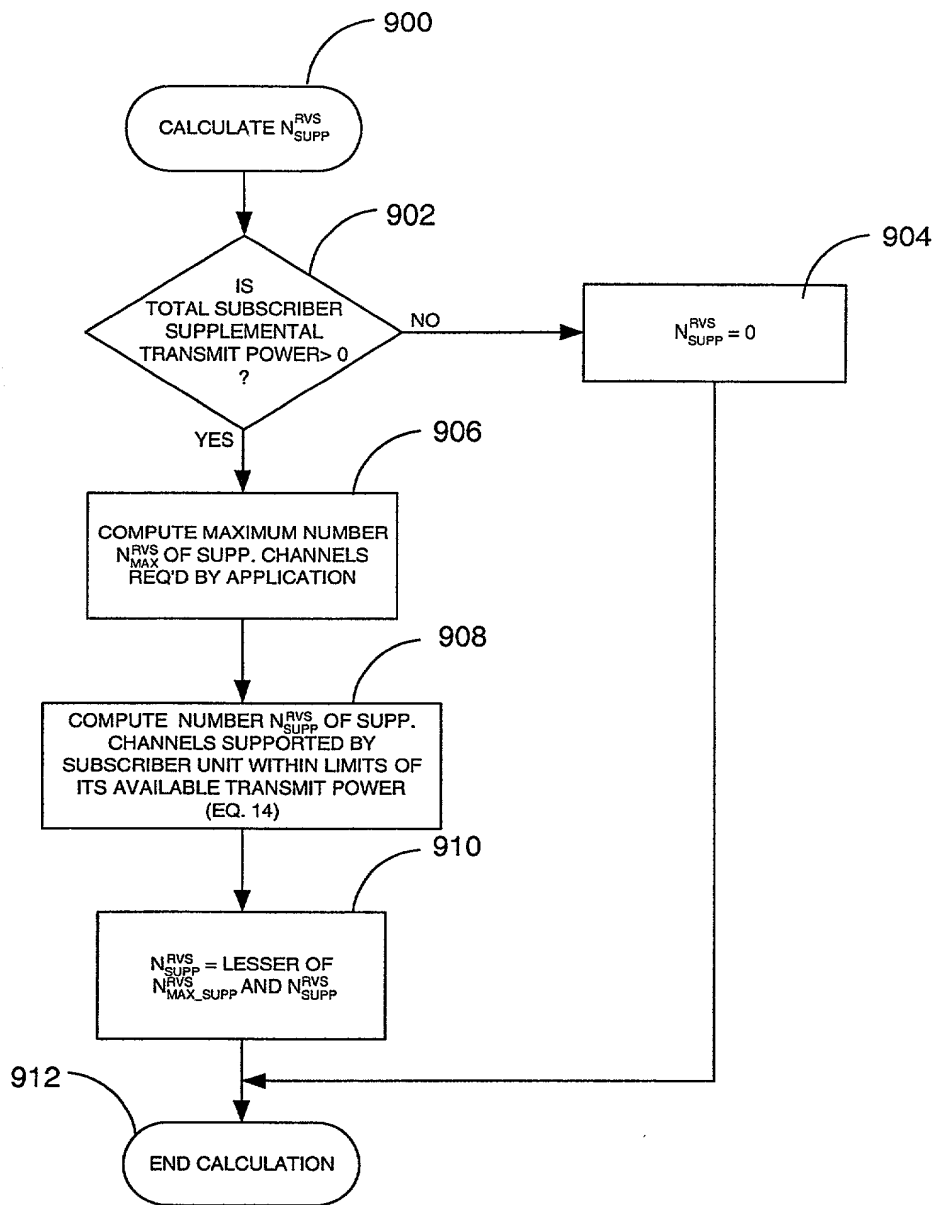


FIG. 9

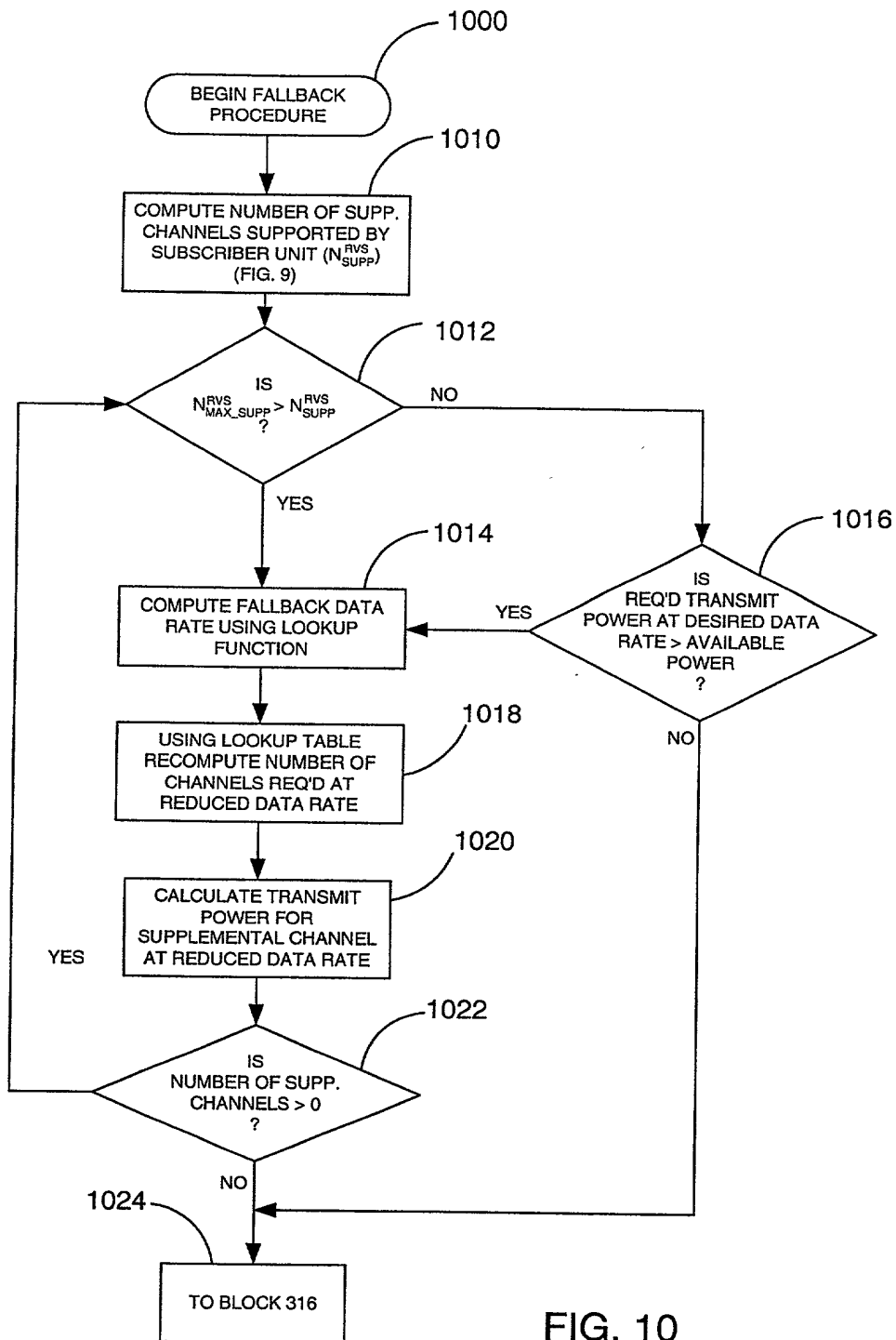
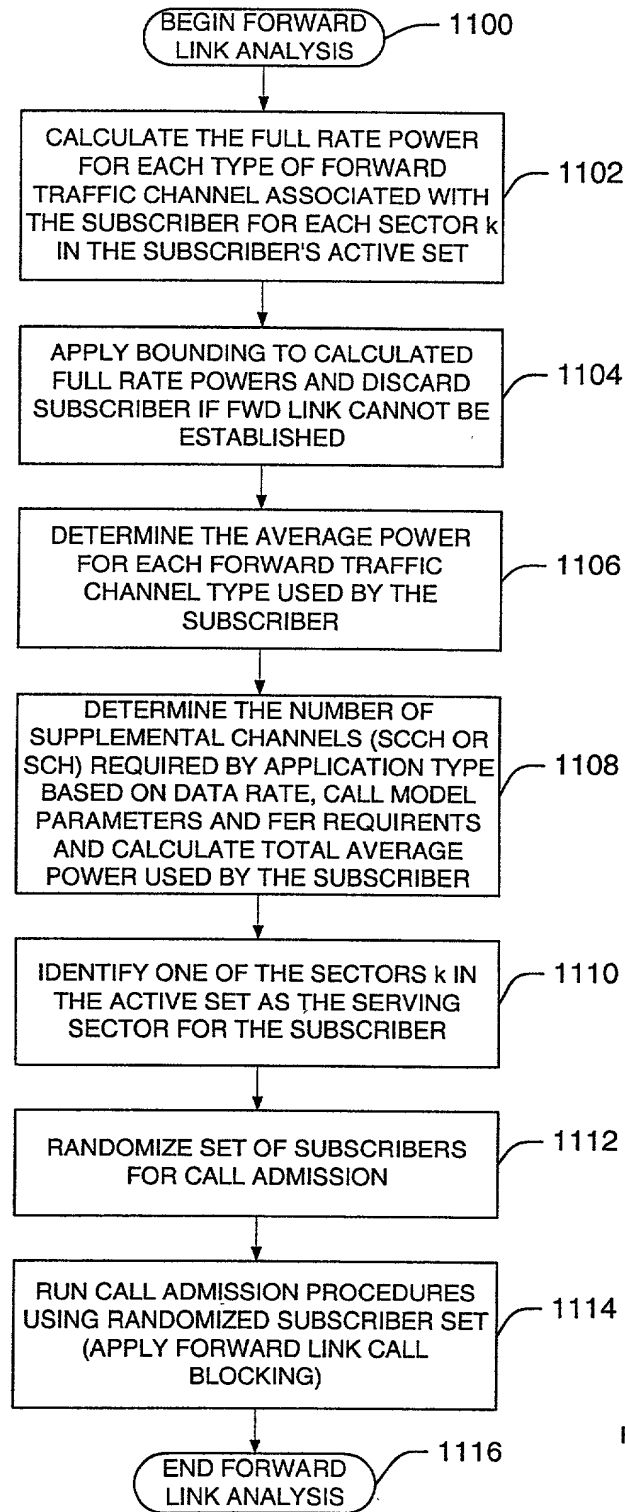
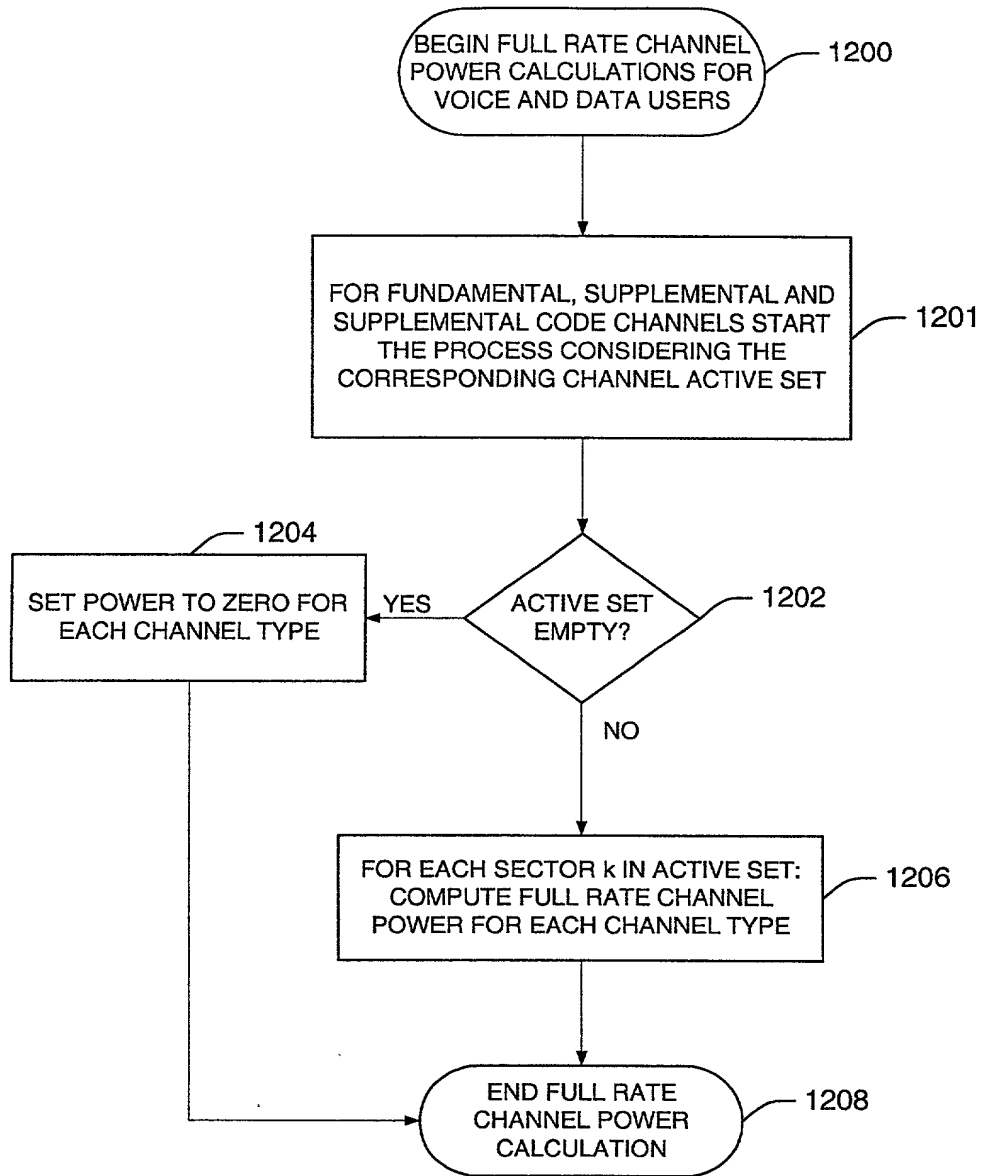


FIG. 10

FALLBACK PROCEDURE



FORWARD LINK
ANALYSIS
OVERVIEW
FIG. 11



FULL RATE FORWARD
TRAFFIC CHANNEL
CALCULATIONS
FIG. 12

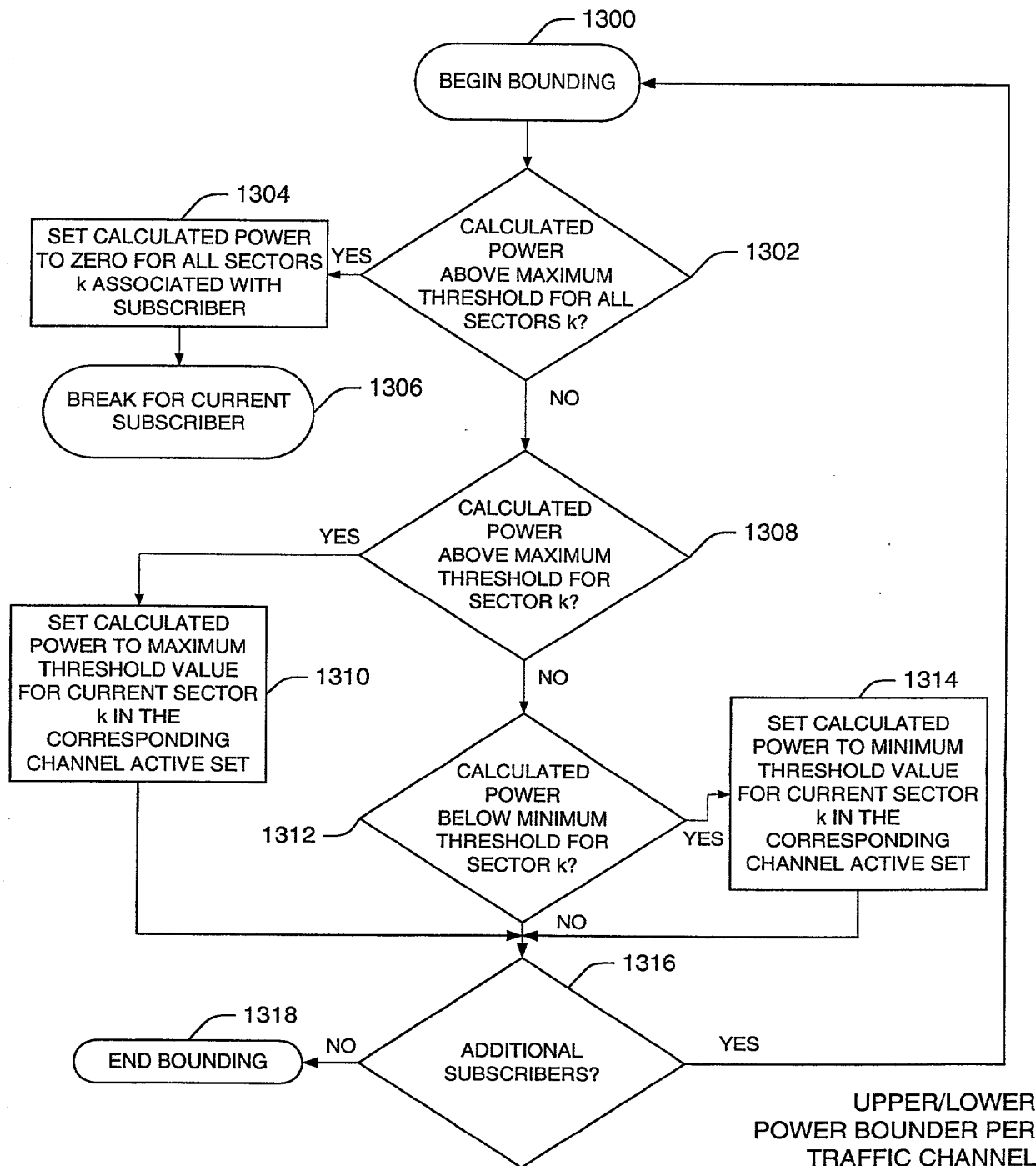
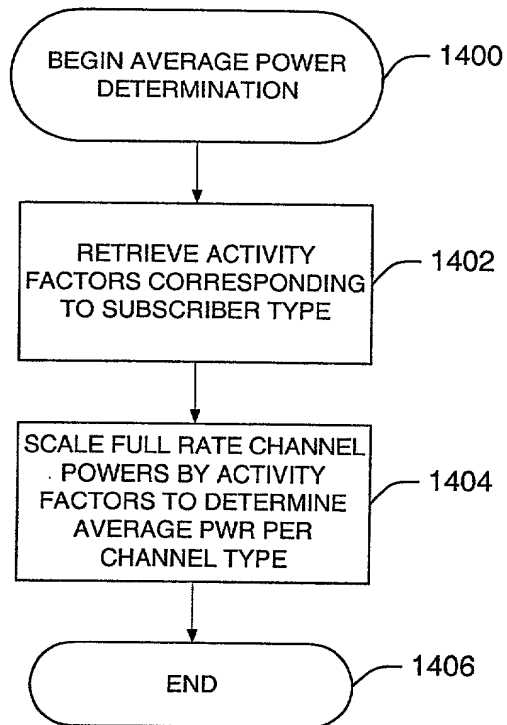
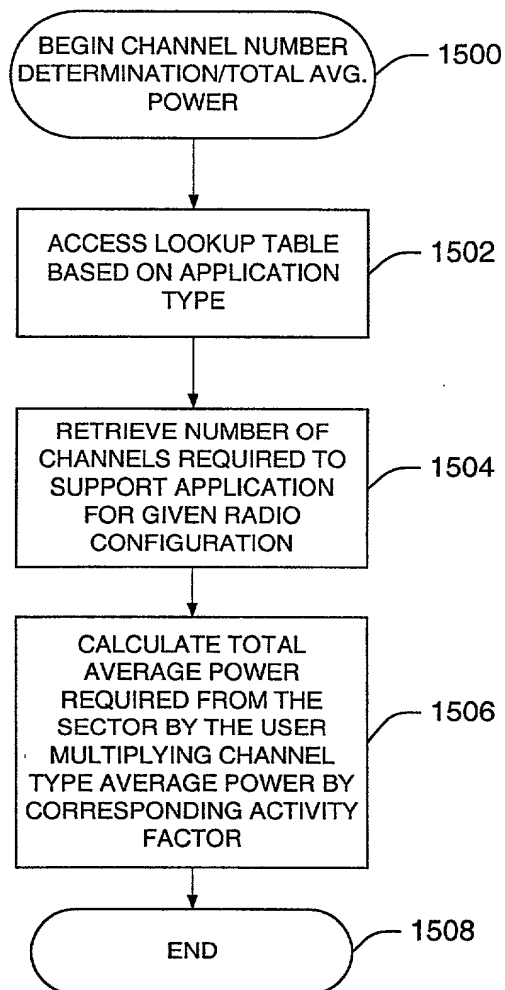


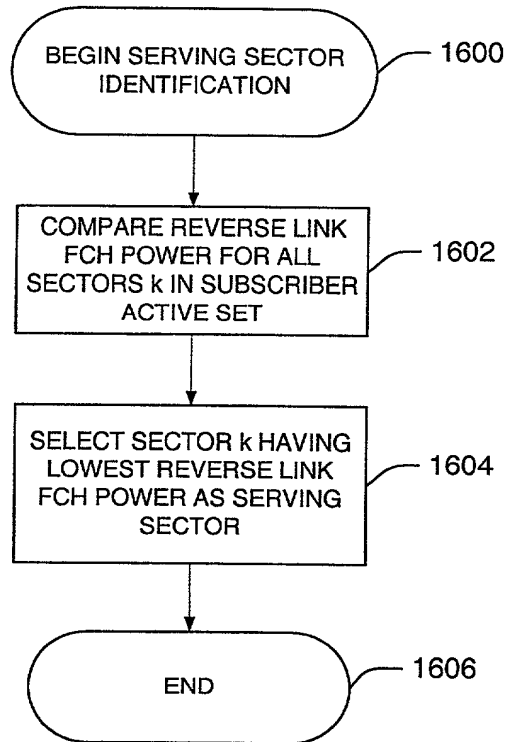
FIG. 13



DETERMINE AVERAGE
POWER PER FORWARD
CHANNEL TYPE
FIG. 14



DETERMINE TOTAL
AVERAGE POWER PER
SUBSCRIBER
FIG. 15



IDENTIFY SERVING
SECTOR FOR TWO-
WAY
COMMUNICATIONS PER
SUBSCRIBER

FIG. 16

FROM FIG. 17



1800 IF THE SIZE OF THE ACTIVE SET IS > 1 , CHECK WHETHER OR NOT THE FORWARD HANDOFF BLOCK THRESHOLD IS REACHED FOR ANY OF THE SECTORS IN THE ACTIVE SET. IF THE ACTIVE SET IS EQUAL TO ONE, GO TO B

1800

1802 IF THE LIMIT IS REACHED, REDUCE THE DATA RATE UNTIL THE POWER IS BELOW THE THRESHOLD OR FIND OUT THAT THE SECTOR k HAS NO RESOURCES IN THE FORMER CASE, THE FWD TRAFFIC POWER IS COMPUTED FOR THE REDUCED RATE (FWD LINK FALL BACK)

1802

1804 IN CASE THERE ARE NOT ENOUGH RESOURCES FOR VOICE USERS, APPLY THE RESOURCES FROM POWER BUCKET RESERVED FOR DATA USERS (PROHIBIT THE OPPOSITE RESOURCE STEALING)

1804

1806 IN THE LATTER CASE (ABOVE), REMOVE THE POWER LIMITED SECTOR FROM THE ACTIVE SET AND REPEAT THE ANALYSIS FOR THE BIN (USER) WITH THE NEW ACTIVE SET

1806

FROM FIG. 18A



1810 IF THE ACTIVE SET SIZE $= 1$, CHECK WHETHER OR NOT THE FORWARD CALL BLOCK THRESHOLD IS REACHED FOR THE ACTIVE SECTOR

1810

1812 IN THE LATTER CASE (ABOVE), SET SUBSCRIBER TRANSMITTER AND FWD LINK POWER TO 0 AND MAKE THE ACTIVE SET EMPTY

1812

1814 IN THE FORMER CASE (ABOVE), THE FORWARD TRAFFIC POWER IS COMPUTED FOR THE REDUCED (FALL BACK) RATE

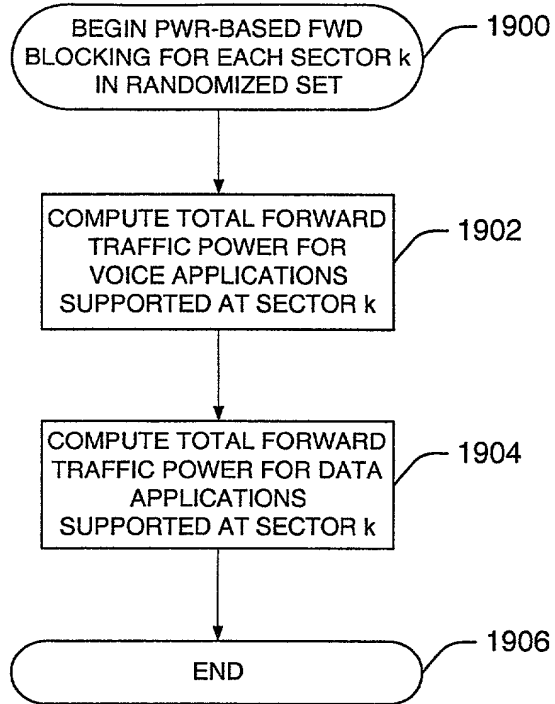
1814

1816 IF THE LIMIT IS REACH, REDUCE THE DATA RATE UNTIL THE POWER IS BELOW THE THRESHOLD OR DETERMINE WHETHER THE THE SECTOR k IS POWER LIMITED

1816

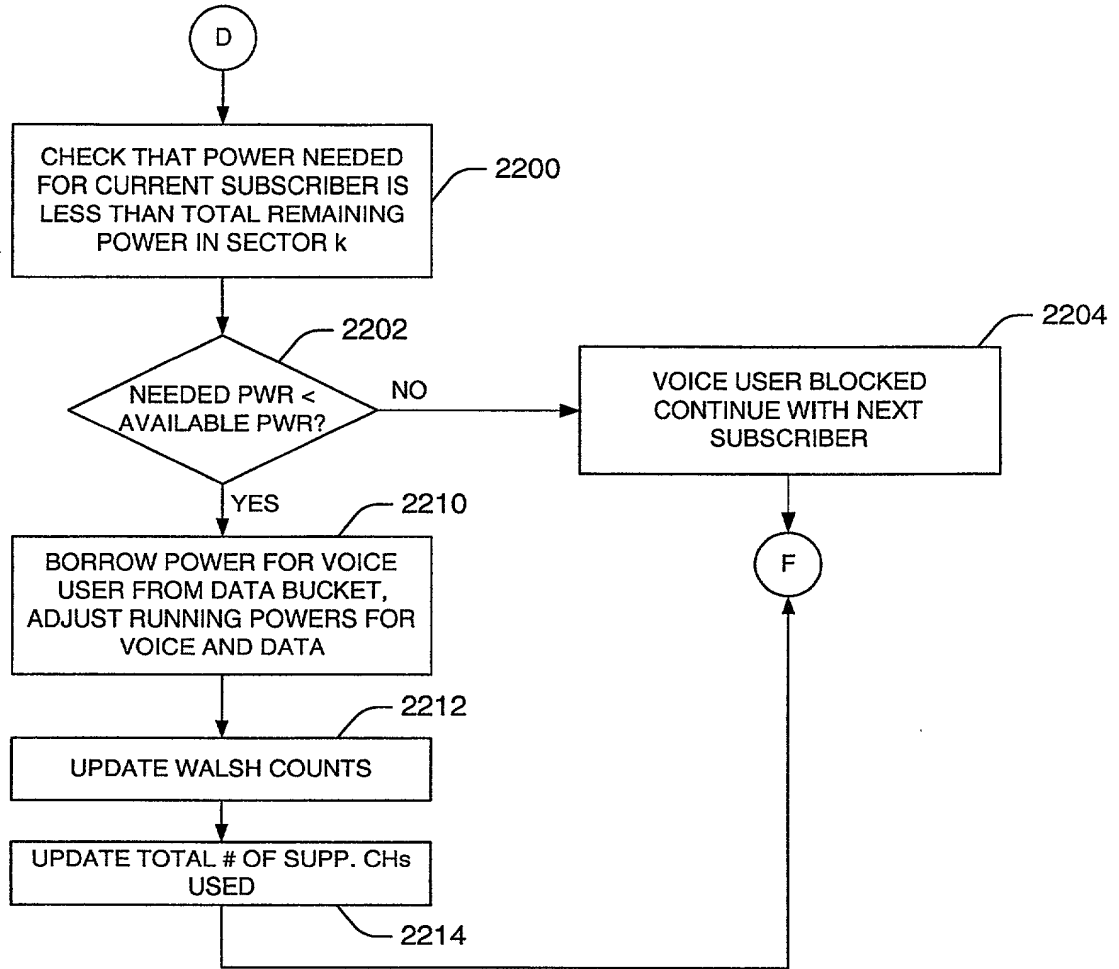
CALL BLOCKING
WITH HAND-OFF
FIG. 18A

CALL BLOCKING, NO
HAND-OFF
FIG. 18B



TOTAL VOICE AND
DATA PWR PER
SECTOR
FIG. 19

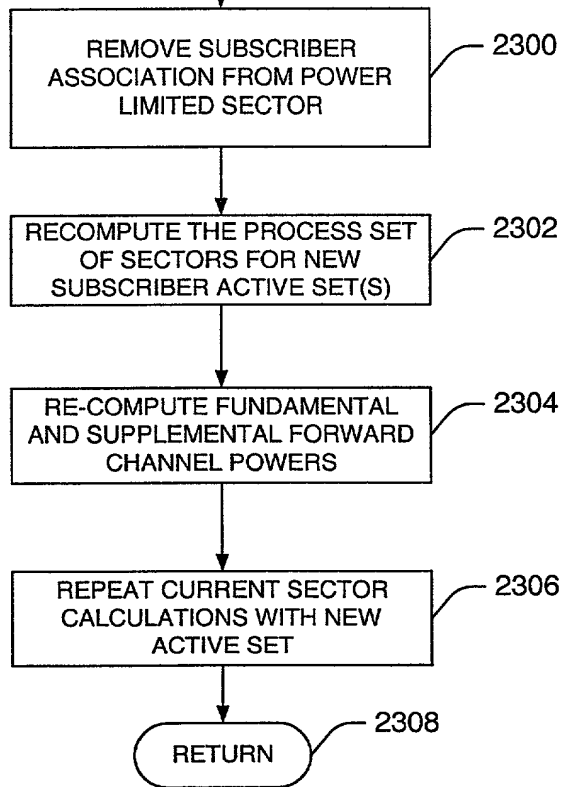
FROM FIG. 21



VOICE SUBSCRIBER
CALL ADMISSION VOICE
BUCKET CHECK
FIG. 22

FROM FIG. 21
OR FIG. 22

E



REMOVE POWR
LIMITED SECTOR
FIG. 23

FROM 2006, FIG. 20
(OPERATIONS OF 2008,
FORWARD BLOCKING
WITH NO HANDOFF)

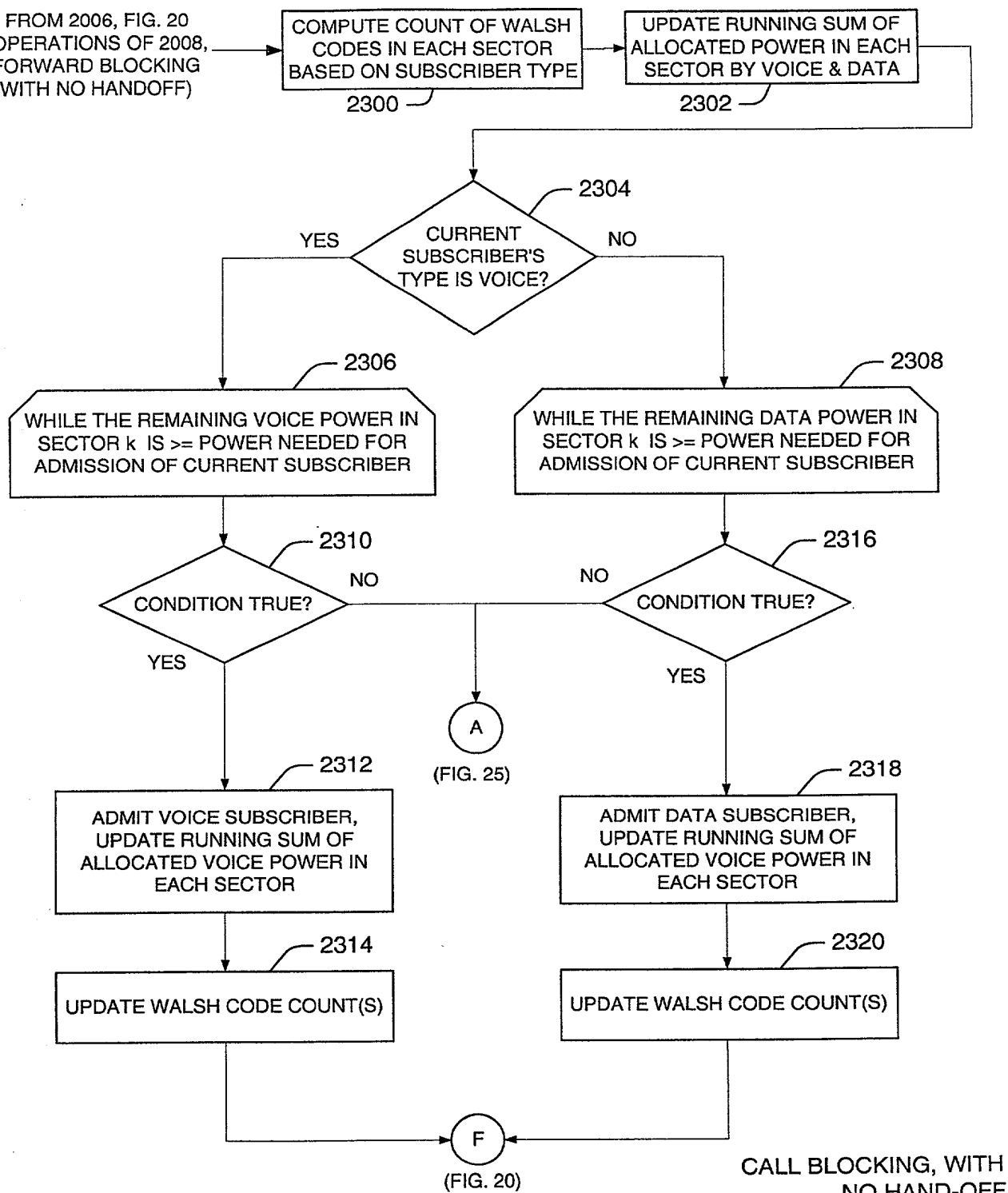


FIG. 24

BEGIN CALL ADMISSION

1700

CHECK TECHNOLOGY COMPATIBILITY

1702

CHECK RADIO CONFIGURATION COMPATIBILITY

1704

CHECK MAXIMUM NUMBER OF CHANNELS SUPPORTED

1706

INITIALIZE THE VARIABLES

1708

FOR ALL BINS AND SECTORS, RANDOMLY POPULATE EACH
SECTOR k UNTIL EVERY BIN IN THE ANALYSIS RADIUS HAS A
POWER ASSIGNMENT

1710

REMOVE ACTIVE SECTORS k WHICH HAVE NO WALSH
CODES FROM THE ACTIVE SET OF A BIN AND IF THE ACTIVE
SET CHANGES, RECOMPUTE THE FCH AND SCH FORWARD
POWERS BASED ON THE NEW ACTIVE SET

1712

REMOVE ACTIVE SECTORS WHICH HAVE NO WALSH CODES
FROM THE SUPPLEMENTAL ACTIVE SET OF A BIN AND IF THE
SUPPLEMENTAL ACTIVE SET CHANGES, RECOMPUTE THE
FCH AND SCH FORWARD POWERS BASED ON THE NEW
ACTIVE AND SUPPLEMENTAL SET

1714

IF THE ACTIVE SET OF A BIN IS EMPTY, SET EVERY
TRANSMITTER TO ZERO AND GO TO THE NEXT BIN

1716

IF THE SUPPLEMENTAL ACTIVE SET OF A BIN IS EMPTY, SET
EVERY TRANSMITTER TO ZERO AND GO TO THE NEXT BIN

1718

IF THE ACTIVE SET IS NON-EMPTY, INITIALIZE THE NUMBER
OF SUPPLEMENTAL CHANNELS AND COMPUTE THE
FORWARD TRAFFIC POWER FOR EACH OF THE SECTORS IN
THE ACTIVE SET OF THE BIN

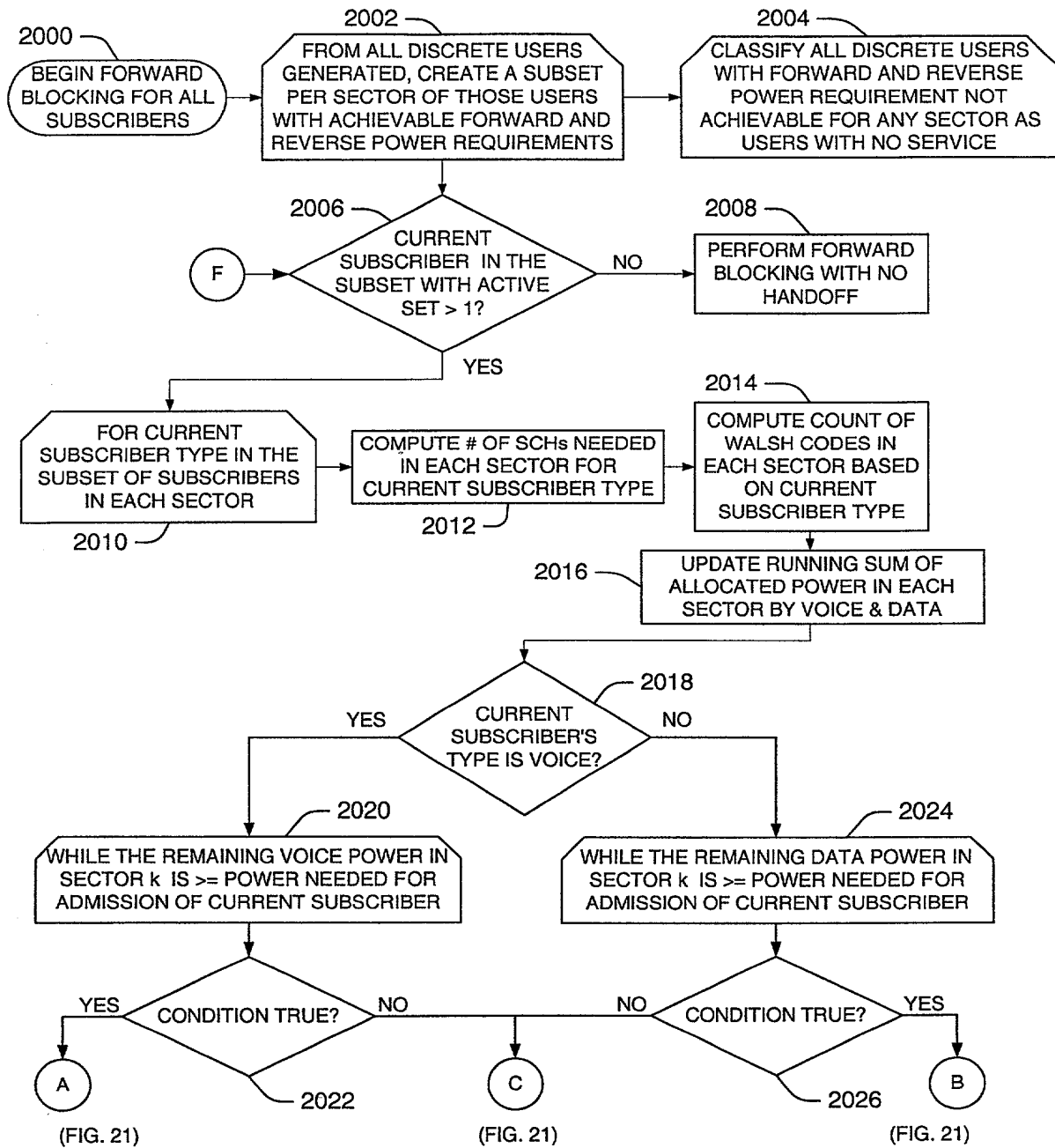
1720

IF THE SUPPLEMENTAL ACTIVE SET IS NON-EMPTY INITIALIZE
THE NUMBER OF SUPPLEMENTAL CHANNELS AND COMPUTE
THE FORWARD TRAFFIC POWER FOR EACH OF THE
SECTORS IN THE ACTIVE SET OF THE BIN

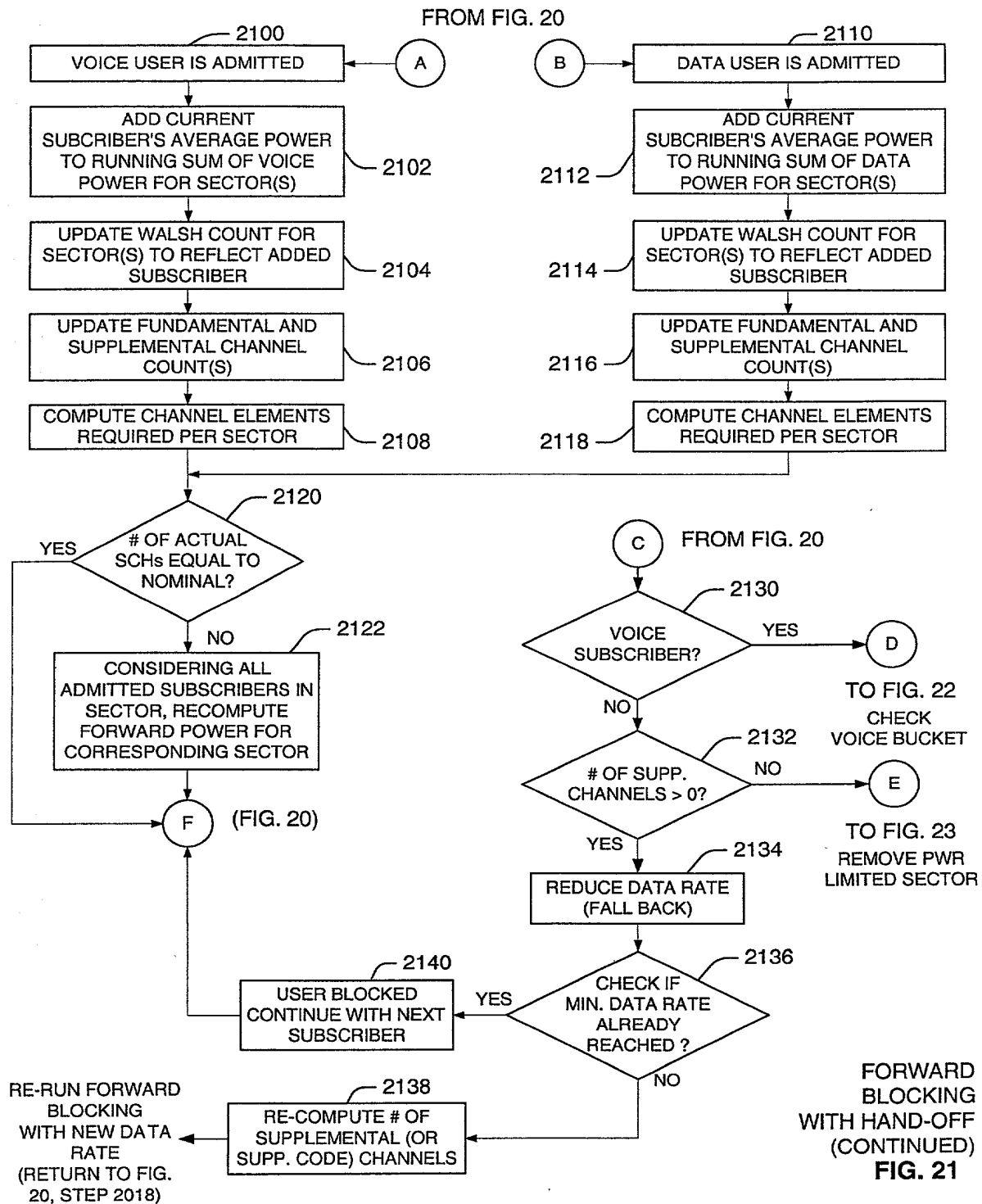
1722

A

FORWARD CALL
ADMISSIONS/
BLOCKING
OVERVIEW
FIG. 17



FORWARD BLOCKING
DETAILS (WITH
HAND-OFF)
FIG. 20



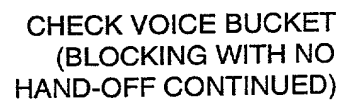
[illegible]

FIG. 25

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(Check one)

☐ [] was filed on _____ as
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Prior Foreign Application(s)

Priority Claimed

NONE			<input type="checkbox"/> []	<input type="checkbox"/> []
(Number)	(Country)	(Day/Month/Year Filed)	YES	NO
_____	_____	_____	<input type="checkbox"/> []	<input type="checkbox"/> []
(Number)	(Country)	(Day/Month/Year Filed)	YES	NO
_____	_____	_____	<input type="checkbox"/> []	<input type="checkbox"/> []
(Number)	(Country)	(Day/Month/Year Filed)	YES	NO

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NONE

(Application Serial No.)

(Filing Date)

(Status: Patented/Pending/Abandoned)

(Application Serial No.)

(Filing Date)

(Status: Patented/Pending/Abandoned)

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Reg. No. 33,959

Dang Vo
Reg. No. 45,183

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24112

PATENT TRADEMARK OFFICE

1 000000 000000 0000 0000 0000 0000

Send Correspondence to:

Michael D. Murphy

Direct Calls to:

Michael D. Murphy

Declaration and Power of Attorney for Patent Application

We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

SOLE OR FIRST INVENTOR:

Full name: Juan J. Silva
First Name Middle Name/Initial Last Name

Signature: _____ Date: _____
First Name Middle Name Last Name Year-Month-Day

Residence: San Diego, California United States
City, State, and Country

Citizenship: Argentina

Post Office Address: 10859 Caminito Alvarez, San Diego, CA 92126

SECOND INVENTOR, IF ANY:

Full name: Todd Ruth
First Name Middle Name/Initial Last Name

Signature: _____ Date: _____
First Name Middle Name Last Name Year-Month-Day

Residence: Valley Center, California United States
City, State, and Country

Citizenship: United States

Post Office Address: 30219 Cole Grade Road, Valley Center, CA 92082

Declaration and Power of Attorney for Patent Application

THIRD INVENTOR, IF ANY:

Full name: Reza Shahidi
First Name Middle Name/Initial Last Name

Signature: _____ Date: _____
First Name Middle Name Last Name Year-Month-Day

Residence: San Diego, California United States
City, State, and Country

Citizenship: Iran

Post Office Address: 5070 Seachase Street, San Diego, CA 92130